



**Terry Tamminen**  
*Secretary for  
Environmental  
Protection*

**California Regional Water Quality Control Board  
North Coast Region  
William R. Massey, Chairman**

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**Arnold  
Schwarzenegger**  
*Governor*

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August 12, 2004

Ms. Julie B. Raming  
Georgia-Pacific Corporation  
P.O. Box 105605  
Atlanta, GA 30348-5605

Dear Ms. Raming:

Subject: Site Assessment Comments for Portions of the Site

File: Georgia-Pacific Fort Bragg Sawmill, 90 West Redwood Avenue, Fort Bragg  
Case No. 1NMC462

I understand from speaking with you, Moira McEnespy of the Coastal Conservancy, and Linda Ruffing of the City of Fort Bragg that you wish to have certain areas of this site evaluated first to facilitate the acquisition of those areas for conversion to public land. Referring to the area labeling used in the Phase I and Phase II Environmental Site Assessment Reports, the areas of consideration for this phase of public land acquisition are the coastal areas of Parcels 1 and 3, a northwest section of Parcel 8, and all of Parcel 10. My supervisor, Tuck Vath, and I agreed to this approach.

Enclosed with this letter are my comments on Parcels 1 and 10 and portions of Parcels 3 and 8, in addition to some comments that apply to multiple areas of the site. Please submit a response addressing each of these comments within two months of the date of this letter.

If you have any questions or comments, you may contact me at [huntc@rb1.swrcb.ca.gov](mailto:huntc@rb1.swrcb.ca.gov) or (707) 570-3767.

Sincerely,

ORIGINAL SIGNED BY

Craig Hunt  
Water Resource Control Engineer

CSH:tab/081204\_csh\_gp\_fb0408commentletter.doc

Enclosure: Comments on Parcels \_\_\_\_

cc: Mr. Mohammad R. Bazargani, TRC, 1590 Solano Way, Suite A, Concord, CA

***California Environmental Protection Agency***

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Mr. Doug Heitmeyer, Georgia-Pacific Corporation, 90 West Redwood Avenue,  
Fort Bragg, CA 95437

Mendocino County Health Department, 501 Low Gap Road, Room 1326, Ukiah, CA  
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Ms. Linda Ruffing, Community Development Department, City of Fort Bragg,  
416 N. Franklin Street, Fort Bragg, CA 95437

Mr. Dave Goble, Public Works Department, 416 N. Franklin Street, Fort Bragg, CA  
95437

Mr. Andy Whiteman, City Manager, 416 N. Franklin Street, Fort Bragg, CA 95437

Ms. Loie Rosenkrantz, 17201 Franklin Road, Fort Bragg, CA 95437

Mr. David L. Berry, Department of Toxic Substances Control, P.O. Box 806,  
Sacramento, CA 95812

Ms. Ashle Crocker, Remy, Thomas, Moose, and Manley, 455 Capitol Mall, Suite 210,  
Sacramento, CA 95814

Email cc List



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August 12, 2004

These are our comments on portions of the *Phase I and Phase II Environmental Site Assessments Reports* for the Georgia-Pacific Fort Bragg Sawmill site. These comments regard Parcels 1 and 10 and portions of Parcels 3 and 8 of the site.

General comments

I have been in contact with some people identifying themselves as former employees of the site. I refer to those contacts in some of my comments. I may receive further relevant comments, from other former employees or other interested parties, in the near future. If I do, I will inform you.

Copies of the chain-of-custody documents and the laboratory narratives were not included with the analytical reports submitted in the Phase II report. Please submit those documents.

The photocopies of the aerial photographs in Appendix C of the Phase I report are difficult to read. Please submit higher-resolution, higher-quality copies of the aerial photographs.

In the future, when a total extractable petroleum hydrocarbon analysis (i.e., TPH-d and TPH-mo) is run on samples from this site and a detection is flagged by the laboratory that the detection does not match the standard or that heavier or lighter hydrocarbons contributed to the detection, please submit the chromatogram for that analysis and relevant standards and have the laboratory comment further on what the detection may be. Also, please inquire with your laboratory if such further information is available for the detections reported in the Phase II report.

The groundwater in the areas under consideration for these comments is potentially downgradient of other impacted or potentially impacted areas of the site. An assessment needs to be made of this potential route of contamination.

Two contacts have stated that dumping of waste chemicals and fluids (e.g., hydraulic fluid and solvents) was commonplace until the 1990's.

In addition, the use and routine dumping of hydraulic oil/fluid at the site in general has been mentioned by multiple contacts. I understand that, in general, some hydraulic fluids contained PCBs. What types of hydraulic oil/fluid have been used at the site?

A concern has been raised that dioxins may have been generated by the possible burning in the powerhouse of various wastes, including but not limited to PCB spill cleanup material. This concern extends to the open burning done in Parcel 10. Dioxin testing has not been done as a regular part of the testing at this site. However, there was concern previously regarding the possibility of dioxins being present in the ash from the powerhouse being used as a soil amendment under permit from this office. Some dioxin testing was performed in the late 1980's/early 1990's as part of the permitted soil amendment projects. Some polychlorinated dibenzodioxins and dibenzofurans were detected but were at low enough concentrations that the soil amendment projects were allowed to continue. The possible presence of dioxins on site due to on-site activities should be addressed.

One contact stated that the underground fire grid piping, except where it has been patched with plastic, is made of "Transite", an asbestos-containing concrete. The contact stated that the fire grid extends as far north as the air yard and as far south as the nursery. The pipes range in diameter from 6 inches to 16 inches.

This office was informed in early 1983 of a complaint made to the county that a wood preservative called "Permatox 180" (also referred to as "Chapman P-180") was being used at the site. Regional Water Board staff wrote in a January 7, 1983 memo, "The informant apparently stated that he was instructed on occasion to apply with hand sprayer a 100:1 solution of Chapman P-180 to stacked lumber... [in the] paved loading yard (near main boiler)." It was also alleged that the chemical was stored at the green chain. A product information sheet in our file indicates that Permatox 180 contained tetrachlorophenol and glycol ether. Two contacts that I have spoken with had heard of pentachlorophenol or tetrachlorophenol use at the site but indicated that they had not heard it to be a permanent operation. One heard that the wood treatment chemical use had taken place in a building and another heard that it took place around the loading yard and/or the air yard; neither contact had direct dealings with or knowledge of wood treatment chemicals at the site. Our files contain a copy of an April 11, 1994 G-P letter to the state Department of Toxic Substances Control, apparently in response to an inquiry regarding possible pentachlorophenol use at the site. It was stated in the letter that:

- "(1) such material was used for a short period (approx 20 months);
- (2) it was hand applied (small amounts);
- (3) all applications were over paved areas;
- (4) only special export products comprising well less than 1 percent of our total production were treated."

Multiple contacts have mentioned the 1989 PCB oil spill from a transformer near the hog:

- One contact stated that the sawdust used to soak up the spill was burned in the burner. That contact also stated that the spill went out a door on the west side of the hog building and reached the concrete pad outside the building; the impacted area was then rocked and black-topped over.

- Another contact that stated he worked at the mill when the spill occurred said that part of his job was doing cleanup around the quad mill. The contact said that he was told to take the material used to soak up that spill out to the area past the runway, south of Johnson Rock. He said that he did bury the material out there and that he took note of the location. He is willing to come out to the site with me to try to more precisely locate that spot. I have been in touch with you to schedule a time when we can visit the site.
- There are items regarding this spill in our files for the site. Regional Water Board staff was informed of the spill but were not involved in the immediate spill response. In a memo, Regional Water Board staff reported inspecting the area after the cleanup had been completed and stated that, due to the concrete floor and a berm around the building, the spill did not appear to have been a threat to water quality. Regional Water Board staff was told that the spill cleanup was performed by a company called ENSCO and that manifests of the proper disposal of the materials was available.
- Our files also contain a copy of a May 16, 1989 letter from G-P to the city of Fort Bragg regarding the potential for dioxin generation from the boiler. It was stated that the PCB spill materials did not go into the boiler.

Three contacts have discussed the disposal of various wastes at the southern end of the site:

- One contact, who stated that he had worked at the site, said that part of his job was an open burn operation many years ago in the Noyo Point area, where July 4<sup>th</sup> fireworks are launched from. He stated that in addition to the sawdust that was burned, old oil and transformer contents had been burned. He stated that the remaining material after a burn was covered over and that he put rock on top (he said that the area was also a rock dump). The burn operation would continue on top of that. He said that the burn was a regular operation and that the burn wastes would now be deep.

The North Coast Action group solicited information from former mill workers and has provided me with additional information and concerns regarding the site. Regarding the areas under consideration with this comment letter, they have heard of multiple locations where various wastes were deposited, which were referred to as "black holes". Two locations were specified: one near the coast in Parcel 3 and one in Parcel 10. I have already transmitted to you a map with the approximate locations marked. I did observe the additional potholing you had performed near the coast in Parcel 3 and I understand you will soon have geophysical surveys conducted of the two locations.

#### Parcel 1

No history for Glass Beach No. 2 and Glass Beach No. 3 were included in the Phase I. My understanding is that the Glass Beach No. 2 area was the Fort Bragg dump before the ocean dump operation was moved to the west end of Elm Street around 1949. I understand that Glass Beach No. 3 was also some type of dump site.

From my inspections, it appears that there are some wastes on the slopes above the beaches, particularly in the Glass Beach No. 1 area. The wastes present on Georgia-Pacific property in these areas should be removed.

The Phase II report text did not mention that various debris was noted in the upper four feet of boring P1-3 in the Glass Beach No. 1 area, as recorded in the boring log.

Although it was stated in the Phase II report that potholing in the Glass Beach No. 3 area was performed in response to anomalies detected with the geophysical survey of the area, specific connections between the potholes and the anomalies were not made in the Phase II report. It would be helpful to have more detail about these connections. This could be done, perhaps, with an overlay figure.

The groundwater sample from boring P1-16, at the pump house in Parcel 1, had 190 µg/L TPH-diesel. The soil samples had 11 and 12 mg/kg TPH-d. Each of these detections was flagged by the laboratory with the following notes: "Heavier hydrocarbons contributed to the quantitation" and "Sample exhibits chromatographic pattern which does not resemble standard". The following description was contained in the boring log for this boring: "@ 2-6': black hydrocarbon staining, mild hydrocarbon odor. The Phase II recommendation for this area was to investigate groundwater in the area with a monitoring well at the helicopter landing pad. The monitoring well installed in that area is approximately 300 ft south-southeast of the pump house. The groundwater gradient data collected indicates that this monitoring well is not downgradient of the pump house. I also consider the distance between the pump house and the monitoring well to be too great to use it to draw conclusions about the pump house area. The contamination in the pump house area should be further investigated. The target analytes for further investigation should include the full range of the TPH-extractable analysis and polynuclear aromatic hydrocarbons (PAHs).

It was stated in the Phase II report that the groundwater samples collected from Parcel 1 were not impacted with TPH-mo. However, the groundwater samples from Parcel 1 were not analyzed for TPH-mo.

It is possible that other wastes or contamination may be found when the paving in Parcel 1 is removed.

### Coastal Area of Parcel 3

This section of Parcel 3 contained what was described in the reports as a scrap yard. Three borings were completed in that area: P3-1, P3-2, and P3-3. From the boring logs, these borings were completed at a depth of 3 ft and bedrock was not encountered. Soil samples at 0.5 ft were collected from each boring and analyzed for TPH-g, TPH-d, VOCs, metals, and PCBs. From the boring logs, it appears that soil samples were also collected at 2.5 ft; however, no analytical results were reported for those samples.

It was stated in the Phase II report that this area had “a thin layer of soil underlain by bedrock...”. However, neither refusal nor bedrock was reported in the logs for the three borings in that area.

TPH-d was detected in each of the three soil samples from 39 to 490 mg/kg. Each of these detections was flagged by the laboratory with the following notes: “Heavier hydrocarbons contributed to the quantitation” and “Sample exhibits chromatographic pattern which does not resemble standard”. PCBs were detected in soil sample P3-3 at 0.14 mg/kg. Some of the detected metal concentrations in the three samples appear to be possibly above background concentrations. The extent of the contamination in this area needs to be further investigated. The target analytes for further investigation should include the full range of the TPH-extractable analysis, PAHs, PCBs, and metals.

### Parcel 8

The residential area in the southeast corner of the site is shown as part of Parcel 8 in some of the figures. However, the residential area was largely unaddressed in the reports. The residential area is not part of the scope of this comment letter.

The Phase I recommendations for Parcel 8 included analyzing soil samples for TPH-mo as well as TPH-d. TPH-mo analysis was not run on these samples.

From the boring and pothole logs, it appears that 17 samples were collected from one boring and nine potholes. However, nine analyses from the one boring and eight of the potholes were reported in the analytical results and laboratory reports.

The rationale for which soils were sampled from the potholes and which samples were analyzed was not given in the Phase II report.

The rationale for the final depths of the potholes was not given. Bedrock was not noted in any of the pothole logs for this area. It does not appear that the bottom of the fill material was reached in pothole P8-T2.

The analytical results table and laboratory report show the sample from pothole P8-PH6 as coming from a depth of 1 ft. However, the log for that pothole shows the only sample coming from a depth of 4.5 ft. Similarly, the results for P8-T3 report a sample depth of 2 ft while the log shows a sample depth of 5 ft.

Not all the laboratory reports for the reported results for this area appear to be in the Phase II report.

The highest concentration of TPH-d was in the sample from P8-T2. From the logs, that pothole contained waste materials. The extent of this waste material and contamination should be investigated. Analysis for PAHs should be included with this investigation. The P8-T2 sample also had the highest concentrations of barium, copper, and zinc in the Parcel 8 samples.



The Phase I report contained a recommendation to perform a geophysical survey in the area labeled "Disturbance Along Coastal Areas (Near Cemetery)" to evaluate the potential presence of buried railroad lines. That recommendation was not carried over to the Phase II report and the geophysical survey was not performed. A geophysical survey in this area could also help determine the extent of the waste materials found in pothole P8-T2.

The Clinker Piles area was investigated with a single pothole that appears adjacent to the piles in the figures. Neither the clinker piles nor the soil immediately under the piles was investigated. I recommend further investigation in this area, with the addition of PAHs to the list of target analytes.

The extended use of various heavy equipment and thus the long-term potential of leaking petroleum products and hydraulic oil in this area should be addressed.

#### Parcel 10

The materials that I have been told were burned in this area included wood wastes, waste oils, and transformer contents. The materials that I have been told were deposited in this area included wood wastes, hydraulic oils, PCB spill cleanup material, boiler ash, and alum pond dredgings.

It was recommended in the Phase I report that this area should be investigated for TPH-mo. TPH-mo analysis was not reported for the 2003 potholes. TPH-mo analysis was reported for the Parcel 10 monitoring well samples.

The SVOC analytical results for sample P10-PH26-2' in the Phase II report tables did not match the results in the analytical reports. In the analytical reports, the following PAHs were detected: naphthalene at 1.1 mg/kg; acenaphthylene at 0.34 mg/kg; phenanthrene at 0.40 mg/kg; fluoranthene at 0.38 mg/kg; and pyrene at 0.34 mg/kg. From the laboratory report, this sample was analyzed a second time with detections for the same compounds: naphthalene at 1.3 mg/kg; acenaphthylene at 0.53 mg/kg; phenanthrene at 0.84 mg/kg; fluoranthene at 0.95 mg/kg; and pyrene at 0.84 mg/kg.

In the 2003 potholing work done in Parcel 10, it appears from the logs that 36 samples were collected from 28 potholes. However, there are analytical results and analytical reports for 14 samples from 14 potholes.

The rationale for what soils were sampled from the potholes and which samples were analyzed was not given in the Phase II report.

The rationale for the final depths of the potholes was not given. Since bedrock was noted at the bottom of some of the holes in the pothole logs, it appears that bedrock was not encountered in the others. It also does not appear that the bottom of the fill material was reached in every pothole.



I do not necessarily concur with the conclusion in the Phase II report that the “concentrations of metals in the pothole soil samples from the Fill Material Area are representative of those found in the greater area.” There appears to be a correlation between the typical concentrations of a few of the metals (particularly barium, copper, zinc, and to a lesser degree lead) and the presence or absence of ash in the soil from which the samples were taken, according to the boring logs. The higher concentrations appear to correlate with the presence of ash.

I do not concur with the recommendation that no further action be required in the Clinker and Ash/Scrap Pile Area. Two samples were collected from the pothole in that area: one from the ash 0.5 ft below ground surface and one at 4 ft from the silt with sand with no ash noted. No analyses were reported for the sample from the ash.

The potholes in the Fill Material Area appear to have mostly been done near the dirt roads around the area. Is the nature of the fill material in the raised area between the eastern and western dirt roads the same as the fill material that was tested?

The analyses being run on the groundwater samples from the monitoring wells are not sufficient considering the wastes known or reported to have been deposited in this area. The analyses should include, at a minimum, TPH-extractable, dissolved metals, PCBs, PAHs (using an analytical method with lower reporting limits than EPA Method 8270 has; for example, EPA Method 8310), and tannins and lignin. I also recommend testing for the pesticides and herbicides used at the site.

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